

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Third Periodic Review of the	)	MB Docket No. 07-91
Commission's Rules and Policies	)	
Affecting the Conversion	)	
To Digital Television	)	
To: The Commission		

**COMMENTS OF WEST VIRGINIA MEDIA HOLDINGS, LLC**

West Virginia Media Holdings, LLC ("WVMH"), by and through its attorneys, respectfully submits its comments in response to the Commission's *Notice of Proposed Rulemaking* ("NPRM")<sup>1</sup> in the above-captioned proceeding to consider the rules and procedures necessary to complete the transition from analog to digital television ("DTV") by February 17, 2009. As discussed below, three of the four television stations licensed to WVMH presently operate DTV facilities on UHF channels, but post-transition will operate digitally on their NTSC channels in the VHF band. WVMH urges the Commission to adopt rules, policies and procedures that will provide the flexibility needed for timely and orderly completion of the DTV transition by television licensees that post-transition will operate digitally on their current NTSC channels.

In support hereof, the following is respectfully shown:

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<sup>1</sup> *Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*, MM Docket No. 07-91, FCC 07-70, released May 18, 2007 ("NPRM"), as extended by DA 07-3518, released August 6, 2007.

## **I. Facts**

The Commission has acknowledged that terrain affects the propagation of digital television signals differently in the VHF and UHF bands.<sup>2</sup> Because digital VHF signals will perform better than UHF signals in rugged terrain,<sup>3</sup> such as is found in the state of West Virginia, WVMH elected VHF channels for post-digital operation of its four television stations, all of which are located in West Virginia. While one of its stations, WVNS, Lewisburg, West Virginia (Fac. ID 74169), was allotted a VHF channel for digital operation prior to the channel election process, the other three of WVMH's television stations presently operate in analog format in the VHF band and digitally in the UHF band, but post-transition will return to their VHF NTSC channels for DTV operation. Specifically:

- WOWK, Huntington, West Virginia (Fac. ID 23342), presently operates in analog format on VHF Channel 13<sup>4</sup> and digitally on DTV Channel 47,<sup>5</sup> but will return to VHF Channel 13 for post-transition digital operation.<sup>6</sup>
- WBOY, Clarksburg, West Virginia (Fac. ID 71220), presently operates in analog format on VHF Channel 12<sup>7</sup> and digitally on UHF Channel 52,<sup>8</sup> but will return to VHF Channel 12 for post-transition digital operation.<sup>9</sup>

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<sup>2</sup> See e.g. *Seventh Report and Order and Eighth Further Notice of Proposed Rule Making, Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, FCC 07-138, FCC 07-138 (released August 6, 2007 (“*Seventh Report and Order*”), Appendix B – page 1, para. 4, Proposed DTV Table of Allotments Information – Data Elements - DTV Power.

<sup>3</sup> See Engineering Statement of Donald G. Everist, P.E. of Cohen, Dippell and Everist, P.C., attached hereto.

<sup>4</sup> WOWK-TV commenced operation in 1955.

<sup>5</sup> WOWK-DT commenced its original digital operation in February 2003, pursuant to FCC File No. BDSTA-20030221ACF.

<sup>6</sup> See *Seventh Report and Order* at Appendix B (“*New DTV Allotment Table*”).

<sup>7</sup> WBOY-TV commenced operation in 1957.

<sup>8</sup> Since 2002, WBOY-DT has operated digitally pursuant to FCC File No. BDSTA-20021022ABK, as extended.

<sup>9</sup> See *New DTV Allotment Table*.

- WTRF, Wheeling, West Virginia (Fac. ID 6869), presently operates in analog format on VHF Channel 7<sup>10</sup> and digitally on UHF Channel 32,<sup>11</sup> but will return to VHF Channel 7 for post-transition digital operation.<sup>12</sup>

For purposes of the Third Periodic Review, the Commission classifies stations that will return to their current NTSC channel for post-transition digital operation as “Category 2 Stations.”<sup>13</sup> Specific challenges confront Category 2 stations in the final DTV transition. Possible solutions are set forth in these comments and the attached Engineering Statement.

## **II. All Category 2 Applications Should Be Accorded Expedited Processing.**

According to the *NPRM*, some 517 stations are within Category 2.<sup>14</sup> Not a single one of these Category 2 stations can proceed to complete the digital transition until applying for and receiving a construction permit for digital operation on its current NTSC channel.

WVMH would urge that *all* Category 2 applications should be processed on an expedited basis, whenever filed, rather than restricting expedited processing only to those applications filed within a specified window.<sup>15</sup> Only with construction permits in-hand will Category 2 stations have sufficient information about their post-transition digital operation to finalize equipment orders and complete construction of the facilities necessary for DTV operation on their NTSC channels.<sup>16</sup>

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<sup>10</sup> WTRF-TV commenced operation in 1953.

<sup>11</sup> Since 2002, WTRF-DT has operated digitally pursuant to FCC File No. BDSTA-20021022ABI, as extended.

<sup>12</sup> See *New DTV Allotment Table*.

<sup>13</sup> *NPRM* at para. 24.

<sup>14</sup> *NPRM* at para. 24.

<sup>15</sup> The *NPRM* proposes to restrict expedited processing requests to a 45-day window. See *NPRM* at para. 94.

<sup>16</sup> Remarkably, at this late stage Category 2 stations do not have enough information to even complete planning post-transition operation, which will require receipt of a construction permit.

The Commission is under a statutory mandate to complete the digital transition by no later than the February 17, 2009 “hard date.”<sup>17</sup> It would disserve the public interest for the Commission arbitrarily to preclude any station from expedited application processing where necessary to timely complete that station’s digital transition.

The viewing public will be most detrimentally affected if a local television service relied on for years suddenly is unavailable. To avoid such a dire result, expedited processing of any applications essential to completion of the digital transition should not be denied to any Category 2 station.

### **III. Category 2 Stations Should Be Permitted To Employ Revised Interference Criteria In Modification Applications Essential To Completing The DTV Transition.**

During the conflict resolution stage of the channel election process, many Category 2 stations were constrained to propose reduced technical facilities in one or more directions in order to preserve their elections to use their NTSC channels for DTV operation post-transition.<sup>18</sup> During the conflict resolution process, NTSC channel election proposals were required to protect existing DTV allotments, but the interference limits applicable to the elected NTSC channel proposals were far stricter than the interference criteria used to adopt the protected DTV allotments. The protected DTV allotments had been assigned based on technical criteria generally allowing interference increases to other stations of up to 2.0%, which the Commission deemed “*de minimis*”.<sup>19</sup> Category 2 stations were required to show no new interference to other

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<sup>17</sup> 47 U.S.C. §309(j)(14)(A).

<sup>18</sup> *Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order*, 13 FCC Rcd 7418 (1998) (“*DTV Sixth Memorandum Opinion and Order*”) at para.79.

<sup>19</sup> *DTV Sixth Memorandum Opinion and Order* at para. 79.

stations exceeding 0.1%.<sup>20</sup> The resultant antenna patterns for some such stations are irregular and contain peculiar nulls.

In the *NPRM*, the Commission proposes to evaluate all post-transition applications pursuant to a 0.5% limitation on predicted interference.<sup>21</sup> In addition, the *New DTV Table* allows some allotments to cause new interference as high as 0.75%.<sup>22</sup> Equity and fairness require that Category 2 stations be permitted to employ in their minor modification applications the 2.0% interference standard previously used in establishing the initial DTV Allotment Table. As shown in the attached Engineering Statement, Category 2 stations will thereby be able to regularize their odd antenna patterns and improve DTV service to outlying areas.

**IV. Category 2 Stations Unable To Transition To Their Former NTSC Channels On February 17, 2009 For Post-Transition DTV Operation Should Be Allowed To Temporarily Use In-Core Pre-Transition DTV Channels.**

Notwithstanding the best of plans, there are circumstances wholly beyond licensee control that may prevent a Category 2 station from completing a timely transition to digital operation on its former NTSC channel. Equipment may not arrive on time or work properly, or winter weather conditions may prevent safe access to the transmitter site. In the unlikely event of such occurrences, Category 2 stations should be permitted to continue DTV operation on their in-core pre-transition DTV channels until digital service on the former NTSC channel is operational. Such temporary operation will ensure continued mid-winter availability of essential local television service.

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<sup>20</sup> See *Report and Order, Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, MB Docket No. 03-15, 19 FCC Rcd 18279 (2004) ("*Second DTV Periodic Report and Order*") at paras. 37-38.

<sup>21</sup> *NPRM* at paras. 103-112.


<sup>22</sup> See *Seventh Report and Order* at paras. 46-60.

**V. Conclusion**

The foregoing premises considered, WVMH urges the Commission to consider and act favorably on its comments herein.

Respectfully submitted

**WEST VIRGINIA MEDIA HOLDINGS, LLC**

By:   
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Its Attorney

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August 15, 2007

ENGINEERING STATEMENT IN  
SUPPORT OF COMMENTS  
ON BEHALF OF  
**WEST VIRGINIA MEDIA HOLDINGS, LLC**  
IN MB DOCKET NO. 07-91

AUGUST 2007

COHEN, DIPPELL AND EVERIST, P.C.  
CONSULTING ENGINEERS  
RADIO AND TELEVISION  
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington                    )  
  ) ss  
District of Columbia                )

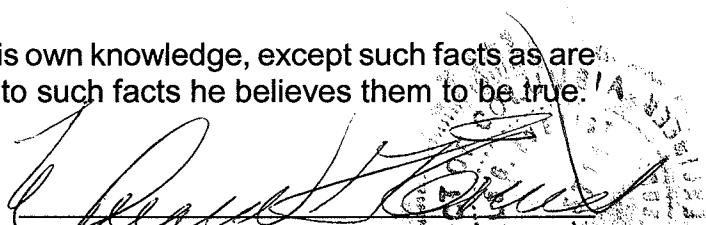

Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

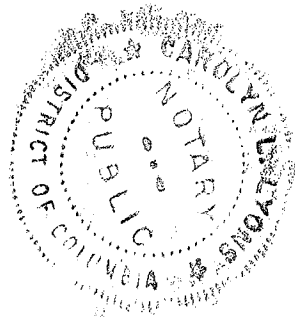
That his qualifications are a matter of record in the Federal Communications Commission;


That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

  
Donald G. Everist  
District of Columbia  
Professional Engineer  
Registration No. 5714  


Subscribed and sworn to before me this 15<sup>th</sup> day of August, 2007.



  
Notary Public

My Commission Expires: 2/28/2008



COHEN, DIPPELL AND EVERIST, P. C.

City of Washington                    )  
  ) ss  
District of Columbia                )

Martin R. Doczkat being duly sworn upon his oath, deposes and states that:

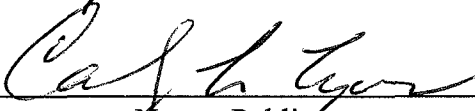
He is a graduate electrical engineer of the Pennsylvania State University, and is a staff engineer at Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That the attached engineering report was prepared by him or under his supervision and direction and

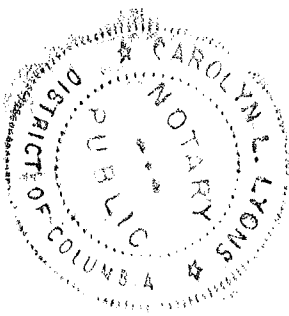
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

  
\_\_\_\_\_  
Martin R. Doczkat

Subscribed and sworn to before me this 15<sup>th</sup> day of August, 2007.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: 2/28/2008



### Introduction

This engineering report has been prepared on behalf of West Virginia Media Holdings, LLC, (“WVMH”) licensee of full-service television stations WOWK-TV, Huntington, West Virginia, WBOY-TV, Clarksburg, West Virginia, WTRF-TV, Wheeling, West Virginia and WVNS-TV, Lewisburg, West Virginia in support of the comments submitted by WVMH in response to the Notice of Proposed Rule Making in the matter of *Third Periodic Review* of the Commission’s Rules and Policies affecting the conversion to digital television in MB Docket No. 07-91.

These stations are located in rural areas of West Virginia. The surrounding propagation paths from each of these transmitter sites are generally mountainous and rugged areas in which the terrain loss is a predominant factor. The terrain loss is frequency dependent in the rugged environment such as West Virginia.

Due to the extraordinary challenges presented by the rugged West Virginia terrain, WVMH elected, and received DTV channel designations in the Seventh Report and Order<sup>1</sup>, on high VHF channels. UHF signals, due to the physics of radio frequency transmission, are inherently less efficient in the conversion of radio waves to the electrical signals used by the television receiver, and are subject to greater losses from environmental conditions such as rugged terrain than VHF signals. Three of the four stations licensed to WVMH (WOWK-DT, WBOY-DT and WTRF-DT) were allotted UHF channels by the initial DTV Table but by the Seventh Report and Order<sup>2</sup> have now received DTV channel designations in the VHF band, and it is the intention of WVMH to operate the stations’ DTV service through the VHF antenna presently being used for the NTSC operation.

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<sup>1</sup>Seventh Report and Order and Eighth Further Notice of Proposed Rule Making, Adopted: August 1, 2007, Released: August 6, 2007

<sup>2</sup>Ibid

The Commission's Rules recognize that the propagation losses increase as the frequency increases such as from Very High Frequency ("VHF") to Ultra High Frequency ("UHF"). The Commission Rules in Section 73.684(k)(1) of the FCC Rules describes the loss associated with the terrain and frequency. Further, in Section 73.684(k), the default terrain roughness factor associated with the TV propagation curves published in Section 73.699 of the FCC Rules is 50 meters. For each of the WVMH stations, the propagation loss is significant in the absence of objectionable interference whether or not over-the-air service is available to the general public.

The Commission's Rules have developed a terrain roughness factor that is found to depart widely along a particular path such as found in rural West Virginia, which can be applied at a particular point along this propagation path. The propagation loss as noted above is frequency dependent and the difference in this rugged environment between UHF and VHF is significant. The propagation loss along the eight cardinal radials derived by using the NGDC 3-second elevation data base for each station are illustrative of this frequency dependency. For WOWK-TV, the loss from UHF to VHF varies from 0.77 dB to 4.02 dB. This represents an advantage in power of 19% to 152% on its VHF channel over its UHF channel. For WBOY-TV, the loss from UHF to VHF varies from 2.1 to 10.3 dB and represents an advantage in power of 62% to 908% on its VHF channel over its UHF channel. For WTRF-TV, the propagation loss from UHF to VHF varies from 0.1 dB to 2.59 dB and represents an advantage in power of 3.9% to 81.5% on its VHF channel over its UHF channel.

A further complication for stations which intend to return to their NTSC VHF channels (which the FCC classifies as "Category 2 stations") is that the directional azimuth pattern in the Seventh Report and Order<sup>3</sup> is asymmetrical. This irregular shape pattern often initially derived from a non-directional pattern may be appropriate for the allotment process but is impractical to achieve

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<sup>3</sup>Ibid

and implement as an operational pattern. The majority of stations, unlike the three terrain-challenged "Category 2" WVMH stations, were able to elect the DTV allotments assigned in the initial DTV Table consistent with good engineering practice, and were permitted to regularize the irregular pattern shape under a different more lenient 2% criteria. This is in stark contrast to the 0.1% interference limit applied to Category 2 stations that elected to return to NTSC channels and were subject to conflict resolution procedures. The result of this inability to regularize these asymmetrical patterns is an inherent reduction of ERP and predicted service. As a consequence, stations located in rural areas and areas which currently receive sparse NTSC services will be further hampered and restricted in receiving over-the-air DTV service. Application of the 2% interference criterion to the Category 2 stations would facilitate regularization of the antenna patterns and improve DTV service to outlying areas.